

**BYPASSES, SANITARY SEWER OVERFLOWS,
COMBINED SEWER OVERFLOWS
AND UNSEWERED COMMUNITIES**

Presented to:

Government Oversight Committee
Legislative Dining Room

Presented by:

Barbara Lynch, Field Services and Compliance Bureau Chief
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IOWA DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL SERVICES DIVISION

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BYPASSES, SANITARY SEWER OVERFLOWS AND COMBINED SEWER OVERFLOWS

There are instances when municipalities and some industries experience the inability to transfer all wastewater to the wastewater treatment facility. *Bypasses* occur when the wastewater is diverted from the head of the wastewater treatment facility (or at a process component within the wastewater treatment facility) to a receiving stream, due to mechanical failures or precipitation induced high flows. *Sanitary Sewer Overflows (SSOs)* occur when the wastewater is discharged from a manhole or a lift station to the receiving stream or backs up into basements, due to mechanical failures or precipitation induced high flows. *Combined Sewer Overflows (CSOs)* occur when the wastewater is discharged directly to the receiving stream because the sanitary sewer and the storm sewer share the same pipe, and under precipitation induced high flows the excess that cannot be directed to the wastewater treatment facility is discharged directly to the receiving stream. Many of the combined sewers were built in the late 1800s and early 1900s when they were considered acceptable. Combined sewers, today, are not acceptable.

As the infrastructure ages, the collection system cracks and fails, allowing clear groundwater to enter into the pipes (infiltration). Many housing facilities and commercial buildings were built with roof drains and foundation drains connected to the sanitary sewers, preventing rain and groundwater from ponding on the surface of the roof and/or entering the basement. This diverted clear water (inflow) dilutes the sewage, but also overloads the collection systems to the point that there are SSOs or bypasses because there is more water than the system or the wastewater facility can physically handle.

Infrastructure repairs are very costly. Often these repairs are put off for some of the more visible repairs that a community might complete. City Councils can often justify spending capital for improvements to their drinking water system than for their wastewater system.

The Iowa Department of Natural Resources (IDNR) has been contacting communities; through technical assistance and formal enforcement many communities have upgraded their facilities, slip lined or replaced sewers to reduce inflow and infiltration, or in some cases, built overflow basins or other structures to provide additional treatment of flows greater than the wastewater treatment facility can handle.

In the late 1980s, the federal grants through EPA for waste water treatment facilities improvements ceased. Now there are low interest loans and matching grants through several agencies, including the IDNR's revolving loan fund, for improvements for these facilities available, but they are competitive and will be more difficult to get as the number of applicants increase.

SUMMARY OF COMBINED SEWERS IN IOWA

The following nine communities in Iowa have combined sewers: Des Moines, Clinton, Burlington, Wapello, Fort Madison, Keokuk, Ottumwa, Muscatine and Spencer.

Combined sewers were constructed to combine storm water and wastewater. When there is significant rainfall the combined sewer will typically discharge to a stream and will continue to discharge until the flow of rainwater into the system subsides.

Many of the above communities have worked through the years to eliminate their combined sewers. In 2006 combined sewers became a priority for the EPA. The IDNR has been working closely with the EPA to work out Consent Orders with these communities to separate their combined sewers. The status of this work is summarized below.

Des Moines (population 200,000). The City was referred to the Attorney General for action. A draft Consent Decree was sent to the City this past summer. Negotiations continue and the agreement has not yet been signed. Rough estimates of the work in Des Moines are \$250 million over 20 years.

Clinton (population 28,000). The City was referred to the Attorney General for action. Field Office 6 staff, IDNR permitting staff and attorneys with the Attorney General's office have met with officials from Clinton several times to work out details of a Consent Decree. The IDNR is still working to complete this action. The City of Clinton is also going to build a new wastewater treatment plant; that schedule will be part of this decree. The City was also cited for effluent violations from the existing wastewater treatment plant. The sewer work alone is estimated at \$60 million.

Muscatine (population 23,000). EPA Region VII, in conjunction with the IDNR, has taken the lead on this system. A Consent Order was signed by Muscatine this past fall to separate all of the combined sewers over 17 years. Estimated costs are \$25 million.

Keokuk (population 12,000). EPA Region VII, in conjunction with the IDNR, has taken the lead on this system. The IDNR have met with officials in Keokuk to start discussions and have had one conference call. The City claims the combined sewer work will cause a financial hardship if they are required to separate their sewers in a time frame of 15 to 17 years. The City has asked for 30 years; EPA is reviewing their request and financial documents. Cost estimates are \$50 million plus.

Burlington (population 27,000). IDNR has taken the lead on this combined sewer system. The City signed a Consent Order this fall to complete separation of all combined sewers within the City over 17 years. The estimated cost of the project is \$35 million.

Wapello (population 2,000). IDNR has taken the lead on Wapello. The City has already completed part of the separation work. The City signed a Consent Order this fall to complete

separation of all combined sewers within 17 years. The estimated cost of the project is over \$3 million.

Fort Madison (population 12,000). EPA Region VII, in conjunction with the IDNR, has taken the lead on this combined sewer system. The IDNR has met with city officials and had one conference call to discuss the details. EPA is continuing to negotiate. A signed Consent Order should be completed in a couple of months. Since the details are not yet determined an estimated cost is not available.

Ottumwa (population 25,000). IDNR is taking the lead on this case. The IDNR has met with city officials to start the negotiations. Ottumwa is currently working on the combined sewers located on the south side of the city. Ottumwa has many combined sewers and they need to conduct more survey work to determine what they have. Preliminary cost estimates of needed work range from \$150 to \$220 million. Discussions with the City's consultant revealed the City is going to claim financial hardship if required to complete the combined sewer work in the 15 to 17 year time frame.

Spencer (population 12,000). EPA Region VII, in conjunction with the IDNR, is taking the lead on this combined sewer system. The IDNR has met once with the City to discuss details. EPA is continuing discussions and IDNR will be meeting with officials again soon. Spencer has been working on the combined sewers over the past years. The City is trying to determine if they can complete all the work in a 15 to 17 year time frame. Estimated cost to complete the work is \$30 million.

PRIORITY SANITARY SEWER OVERFLOW (SSO) FACILITIES IMPROVEMENT UPDATE, STATE OF IOWA

FIELD OFFICE 1

Asbury. The facility had been a significant SSO problem. Lift stations were upgraded and a new plant was constructed in 2006. A sewer moratorium was imposed on segments of the collection system which helped achieve compliance.

Cedar Falls. A plan of action will be requested this winter to eliminate frequent SSO areas; an ACO will be prepared.

Cedar Rapids. A plan of action has been requested. USEPA is also evaluating action.

Denver. Improvements will be addressed in facility plan for a new treatment plant. Undersized lift station, lack of emergency pumping, and ammonia violations; an ACO will be prepared.

Dubuque. Planned IDNR/USEPA Order – Sewer connections will not be allowed on new mains in the collection system where there are chronic problems for new mains that were constructed. These restrictions were added to construction permits. Sayta wrote these construction permits.

Readlyn. Further evaluation to be made to determine if recent SSO events are wet weather events.

Waterloo. A plan of action will be requested this winter to eliminate frequent SSO areas; ACO may be prepared.

FIELD OFFICE 2

Blairsburg. The City has reported excessive bypassing and excessive discharges from the controlled discharge lagoon system. This system was referred to legal in March 2007.

Fort Dodge. Overall, the City does not have a serious problem with SSOs. One lift station is located very near the Des Moines River and is subject to flooding. The flooding results in the release of wastewater from the collection system to the river, as well as allowing river water to be pumped to the wastewater treatment plant, and putting additional strain on the existing flow equalization basin.

Grafton. The number of reported bypasses may not reflect the actual bypassing that occurs in the system. The City has been instructed to report all bypassing events in the most recent inspection. The data will be evaluated for determination of the seriousness of the problem.

Iowa Falls. Administrative Consent Order #2004-WW-12 was issued to deal with problems of bypassing at the WWTP. The City has 12 collection system bypass points listed in their NPDES

permit. Unobserved discharges may have occurred at some of these points. Field Office 2 (FO2) continues to work with the City to address any problems at these locations.

Mason City. There are two neighborhoods where SSOs have occurred on a periodic basis. However, the City is currently engaged in an aggressive sewer rehabilitation program and is also working on an expansion to the wastewater treatment facility. This may soon result in their removal from the priority list.

Wellsburg. Excessive bypassing has occurred. An inspection in September 2007 required the City to submit a plan of action by December 17, 2007.

FIELD OFFICE 3

Cherokee. The City has considerable difficulty during extremely heavy rainfall events at some locations. They have upgraded their collection system and lift stations to eliminate bypassing and have spent millions of dollars in the process.

Emmetsburg. The City is aware of their infiltration problems and replaced the force main to the plant a few years ago and put in a new lift station. Their bypass is equipped with a static screen, but they are also working on a multi-phased upgrade project which will eliminate the bypass altogether. Field Office 3 (FO3) recently did a site survey for their proposed equalization basin which will also help reduce bypasses. They also have televised all of their system and fix a few problem areas each year. They are working toward a solution, so enforcement action is not recommended at this time.

Everly. The City of Everly is already under AO for frequent discharge and bypassing. They will be adding another cell and doing some sewer rehab work.

Holstein. The lift station on the north side of town often has trouble keeping up with the flows (even in relatively small rainfalls). Residents have complained about basement backups and it is thought the City have a new housing development in the works. FO3's last inspection report noted that they did some rehabilitation and put in new pumps in the lift station in 2002-03, but this doesn't appear to have solved the problem. They had an AO in 1996 for plant upgrades and replaced 415' of 12" main at that time, but not much else appears to have been done since then. Enforcement action is likely needed to compel the city to correct this problem.

Lake View. The City has issues with a lift station that cannot keep up during storms. They usually use a trash pump and pump it to a farm field, but there has been a broken tile that acted as a conduit to convey the wastewater to the lake. They've addressed some of these issues. The City has repaired a broken field tile and they installed some new lines to convey storm water near the lake so that it was not going to the collection system and overloading that lift station. They had an AO in 2004 for bypassing and have done all that that AO specified.

Lytton. They have issues dealing with heavy rains.

Royal. The City's lift station cannot keep up during heavy rains. They've added another cell to their lagoon, but it is unknown if any of the upgrades will directly deal with the sewer system and reducing/eliminating bypasses.

Sheldon. The City's north lift station has trouble keeping up in heavy rains. They've hired an engineer to study and upgrade that lift station. The City will also be doing some slip lining in that area of town.

Spencer. The City has combined sewers and EPA is negotiating with them to eliminate those sewers by 2025. They have spent several million dollars over the past few years for this project.

Spirit Lake. The City of Spirit Lake is an extension of IGLSD, but have responsibility for their own collection system. The City has some hydraulic overloading issues, as they usually have to drop a trash pump in and alleviate the pressure to avoid basement backups. Often the wastewater does reach the lake. This could be a candidate for enforcement action.

FIELD OFFICE 4

Atlantic. Main source of bypassing is due to hydraulic overloading in the collection system. 2/10/03 – IDNR issued Administrative Order No. 2003-WW-04 and assessed a \$3,500 penalty for not notifying the IDNR of bypasses in a timely manner. 3/30/04 – IDNR issued Administrative Order No. 2004-WW-16 and assessed a \$4,000 penalty for not notifying the IDNR of bypasses in a timely manner. 7/5/07 – Field Office 4 (FO4) staff sent the City a letter stating that due to their history of SSOs/Bypasses they are to address the issue. IDNR is working on an amended Administrative Order with the City of Atlantic. At this time it appears that the City will be building an equalization basin. The project is to be completed at a cost of \$4.8 million.

Audubon. Main source of bypassing is Outfall 002 (i.e. the West lift station). 7/5/07 – FO4 staff sent the City a letter stating that due to their history of SSOs/Bypasses they are to address the issue. 9/11/07 – FO4 staff visited with City officials about bypassing. Outfall 002 – West lift station bypass; the West lift station is located southwest of the West Central Cooperative facility; this lift station has not been upgraded for quite some time, if ever; this lift station also only has a warning light; this lift station has two pumps rated at 100 gpm each; most bypasses occur at this lift station; Mr. Jensen stated that they believe that I/I is primarily responsible for the bypasses from this lift station; he stated that there is a 12" sewer line that runs for many blocks under Golden Street and that this line, which has only two houses hooked up to it, should be abandoned as it runs full when it rains; Mr. Jensen said that the City intends to reroute the service line from one of the houses and buy the second house and eliminate its connection (these two houses are located near the intersection of Pacific Avenue and West Broadway Street). Mr. Stetzel stated that he will be working with U.S. Water and JEO engineering to address the City's bypassing.

Bridgewater/SIRWA. Main source of bypassing is the main lift station and I/I issues. 2/5/03 – IDNR issued Administrative Order No. 2003-WW-02 requiring the City to complete a sewer system evaluation addressing excess influent flow. 6/28/03 – IDNR issued Administrative

Order No. 2003-WW-02-A1 extending the deadline for the sewer system evaluation. 9/14/06 – Wastewater Engineering Section issued Construction Permit No. 2007-0095-S for replacement of 3,403 feet of existing 8” sewer, 13 manholes, 7 chimney seals and a new lift station with two 140 gpm pumps. 7/5/07 – FO4 staff sent SIRWA a letter stating that due to their history of SSOs/Bypasses they are to address the issue. All construction should be completed by mid-2009 at a cost of approximately \$350,000.

Carroll. Main issue is SSOs in the collection system and I/I issues. 8/4/06 – FO4 staff sent the City a letter informing them sewage backups into basements is unacceptable. 7/5/07 – FO4 staff sent the City a letter stating that, due to their history of SSOs/Bypasses, they are to address the issue. FO4 staff has scheduled a CSI wastewater inspection of Carroll next quarter to further reiterate the IDNR’s stance on bypassing as well as Treatment Agreement issues.

Clearfield. Main source of bypassing is several of the small lift stations plus I/I issues. 10/15/01 – IDNR issued Administrative Order No. 2001-WW-39 with a \$3,500 penalty requiring them to have a licensed professional engineer evaluate their wastewater system. 1/19/07 – Wastewater Engineering Section issued Construction Permit No. 2007-0244-S for septic tank improvements and generator placement. 7/5/07 – FO4 staff sent the City a letter stating that due to their history of SSOs/Bypasses they are to address the issue. This project is scheduled to be completed in December 2007 at a cost of approximately \$254,000.

Creston. Main issue is SSOs in the collection system. 7/5/07 – FO4 staff sent the City a letter stating that due to their history of SSOs/Bypasses they are to address the issue. 10/23/07 – FO4 staff conducted a CSI wastewater inspection. The following is language from the recent inspection report: Mr. Willets stated that the City is addressing an ongoing problem with sewer backups in a small area of the City that occur during heavy rainfall events. He stated that the City is pursuing the purchase of a sewer jet truck with a camera that will allow the City to better locate and repair sewer main problems. The City has also contracted with an outside company to televise several thousand feet of sewer line to help locate problem areas. The City’s consulting engineer is also evaluating the problem area to determine the best way to repair the collection system in the affected area. The IDNR has determined that SSOs and bypassing are matters of high enforcement priority, and is taking steps to eliminate these problems wherever possible.

Diamondhead Lake. Main issue is SSOs in the collection system and at lift stations. 7/17/01 – IDNR issued Administrative Order No. 2001-WW-25 with a \$5,000 penalty requiring Long Branch Maintenance Corporation (LBMC) to comply with their NPDES permit. 10/1/02 – LBMC became the Diamondhead Lake Sanitary District. Diamondhead Sanitary District has been upgrading their lift stations for the past several years. 7/5/07 – FO4 staff sent the Sanitary District a letter stating that due to their history of SSOs/Bypasses they are to address the issue.

Stanton. Main issue is bypassing at the main lift station. 9/11/07 – FO4 staff visited with City officials to discuss the IDNR’s concern over the facility’s bypasses. The City will be inspected this quarter and will be required to have an engineer evaluate their system to determine whether it is I/I, inadequate capacity of the lift station, or both. They will then have to remediate.

Stuart. Main issue is bypassing at the headworks of the WWTP and I/I issues. 7/5/07 – FO4 staff sent the Sanitary District a letter stating that due to their history of SSOs/Bypasses they are to address the issue. 10/15/07 – IDNR has approved Stuart’s Facility Plan. They will be undertaking a complete facility upgrade from a trickling filter plant to an activated sludge plant.

Sun Valley. Main issue is SSOs in the collection system. 7/5/07 – FO4 staff sent the Sanitary District a letter stating that due to their history of SSOs/Bypasses they are to address the issue. 8/10/07 – FO4 staff met with SVSD Board, per their request, to address SSOs/Bypasses. 9/21/07 – FO4 staff conducted a routine wastewater inspection and reiterated that SSOs/Bypasses must be adequately addressed or additional enforcement action may need to be taken.

Vail. Main source of bypassing is the main lift station. 8/17/05 – FO4 staff inspected Vail WWTP. 11/1/05 – Inspection report required Vail to contact IDNR Wastewater Engineering Section by 12/1/05 regarding the need to upgrade their facilities to include needed repairs at the lift station (source of bypassing). 6/29/07 – Wastewater Engineering Section issued Construction Permit No. 2007-0422-S for construction of two additional secondary cells and one 150 gpm lift station with two 3 HP pumps. 7/5/07 – FO4 staff sent the City a letter stating that due to their history of SSOs/Bypasses they are to address the issue. 11/28/07 – According to the project engineer this project should be completed in late 2008 at a cost of approximately \$800,000 to \$850,000.

Westside. Main source of bypassing is the main lift station. 8/4/03 – IDNR issued Administrative Order No. 2003-WW-24; the order required the City to submit an engineering report prepared by a licensed professional engineer for required facility improvements. Bypassing from the lift station shall be eliminated and lagoon seepage allowances shall be met. 4/9/07 – Wastewater Engineering Section issued Construction Permit No. 2007-301-S for construction of one primary lagoon cell with a surface area of 2.62 acres, one new lift station with two 3 HP pumps, removal of sludge and concrete rubble, and sealing of the bottoms of cells 2 and 3. 7/5/07 – FO4 staff sent the City a letter stating that due to their history of SSOs/Bypasses they are to address the issue. 11/29/07 – FO4 staff contacted K & P Engineers; the two new lagoons are complete and the lift station project will be complete in ~2 weeks. The total cost of the project was approximately \$900,000.

FIELD OFFICE 5

Boone. Ten days of overflows reported this year. They are on a three year compliance schedule that includes three phases at a cost of approximately \$12 million. They are currently implementing Phase 1.

Des Moines. Most of the reported overflows for Des Moines are associated with CSOs and sewer blockages. This has been referred to the Iowa Attorney General (January 2007) for a consent order. The City of Des Moines has submitted a schedule for separation of the sewers over a 15-20 year timeframe. Field Office 5 (FO5) is also asking the AG to include requirements for more frequent system maintenance to reduce sewer blockage bypassing. Twenty-six overflows were reported for 2006. Approximately ten overflows have been reported for 2007.

Garwin. Five days of overflows reported this year. They are scheduled for a wastewater inspection during the fall quarter 2007.

Huxley. Six days of overflows reported this year. FO5 contacted Huxley and plans were received for improvements to the treatment system to take place in the next 12 to 18 months.

Indianola. FO5 has contacted the City Manager to provide a schedule of improvements Spring 2008.

Knoxville. Four days of overflows reported this year. The City is on a three year compliance schedule. Sewer improvements are under design.

Marshalltown. Six days of overflows reported for 2007. Marshalltown has been contacted by FO5 and a plan has been requested to address the problems.

Ogden. Eighteen days of overflows reported for 2007. Some of these were overflows from a flow equalization basin. They are scheduled for a wastewater inspection during the fall quarter 2007.

Osceola. Two days of overflows reported this year. Five days of overflows reported in 2006. FO5 recently inspected this facility. The City will be contacted to provide a schedule for improvements.

Perry. FO5 has contacted the City of Perry and they have been required to provide a schedule of improvements in Spring 2008.

Story City. Thirteen days of overflows reported for 2007. Most of these overflows were from a flow equalization basin. FO5 has contacted Story City and are waiting for a plan.

Zearing. Seven days of overflows reported this year. FO5 has contacted the City of Zearing and improvements to the sewer system are to take place late this fall or next spring.

FIELD OFFICE 6

Burlington. The City signed an Administrative Consent Order in November which will address the SSOs and CSOs within the city. This project will span 17 years and cost the city over 30 million dollars. SSO work will start in 2008.

Davenport. The City has a plan to reduce inflow and infiltration. The City has an annual sanitary sewer lining program to line those sections identified by the city inspections as having open joints, cracks or other sources of clear water entry.

Fairfield. Staff are putting together an Administrative Consent Order for Fairfield that will require the City to collect data and develop a plan to address all the SSOs within the city. The City has already completed \$500,000 of work on one lift station this past summer. The City continues to identify inflow and infiltration problems.

Milton. The City installed two new lift station pumps in a lift station that bypassed frequently. The City is developing a plan to correct infiltration and inflow problems.

Ottumwa. The City committed to providing backup power to 21 lift stations. The City is currently working on 6 of those.

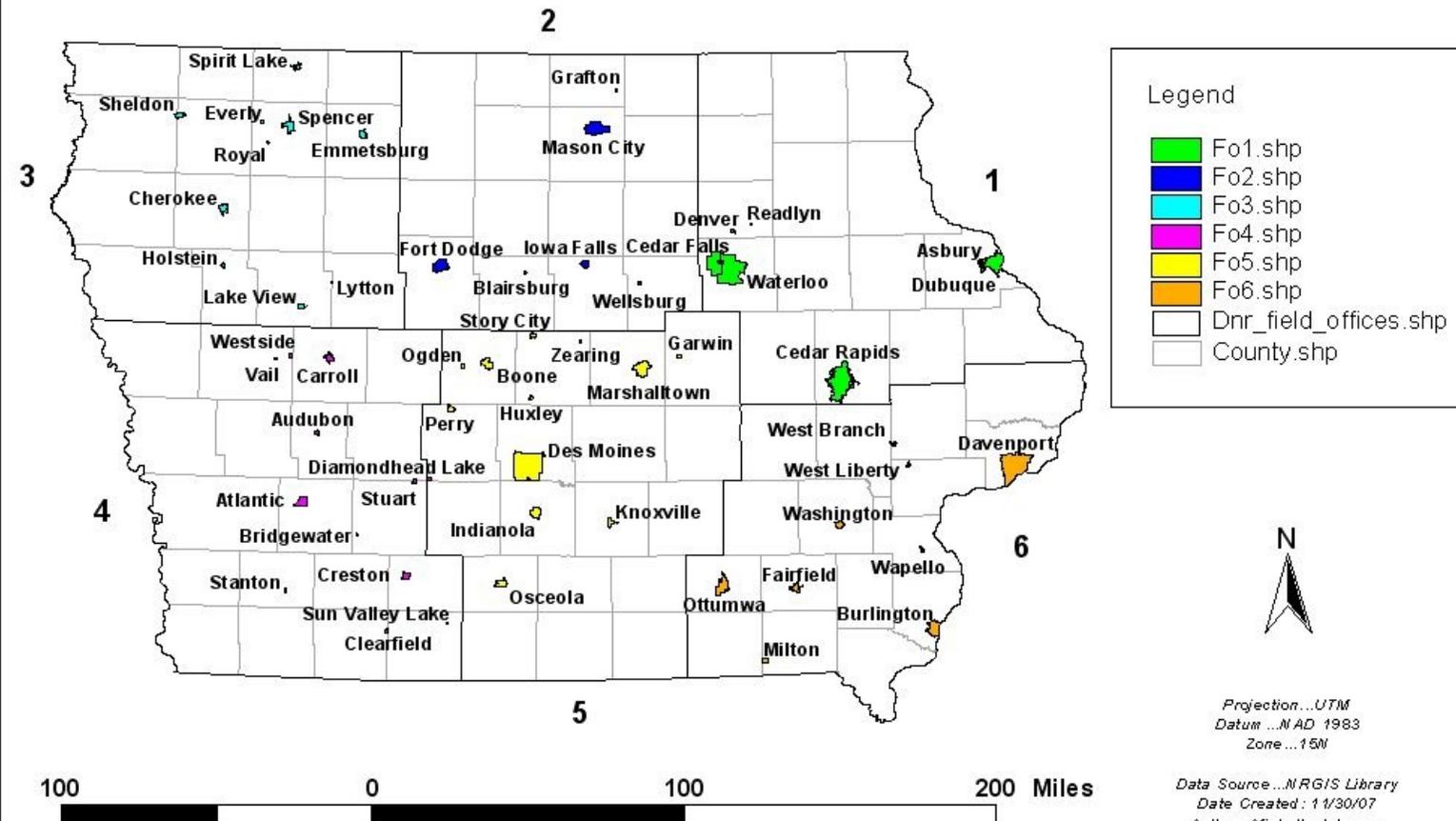
Wapello. The City signed an Administrative Consent Order in early November which requires the City to address all of their combined sewers.

Washington. The City signed an Administrative Consent Order that addresses SSOs and the City will construct a new wastewater treatment plant.

West Branch. The bypassing in the City is related to power outages. The City committed to providing backup power by September 1, 2008.

West Liberty. The City plans on expanding the wastewater treatment plant during the fiscal year. The project will include a storm water cell, additional sludge storage tanks and general upgrades to the plant. The City is also conducting inflow and infiltration studies.

Priority Sanitary Sewer Overflow (SSO) Facilities Improvement Update, State of Iowa



STRATEGY FOR THE REGULATORY CONTROL AND CORRECTION OF OVERFLOWS FROM SEPARATE SANITARY SEWER SYSTEMS IN IOWA

GOAL

The goal of the IDNR is to identify the separate SSO discharges in Iowa and take appropriate regulatory actions to eliminate all identified overflows.

BACKGROUND

SSOs are discharges of raw or inadequately treated sewage from municipal separate sanitary sewer systems, which are designed to carry domestic sewage but not storm water. These overflows may contain industrial wastewater that is present in the sewer system.

The SSOs differ from CSOs. The CSOs are overflows from sewer systems designed to carry both domestic and storm water loads. The CSOs usually occur under very wet weather conditions, and thus are diluted with storm water.

When an SSO occurs, raw or inadequately treated sewage may be released into basements, city streets, private property, rivers, streams and groundwater. The SSOs can constitute a serious environmental and public health threat. Most SSOs are associated with wet weather conditions, when sanitary sewer systems receive storm water inflow or groundwater infiltration. The SSOs may occur during extreme hydrologic events in many separate sanitary sewer systems, even though systems are intended to collect and contain all the sewage that flows into them. SSOs can also occur when lift station pumps fail due to mechanical problems or power outages. Lift stations are required to have an emergency power source or alternate pumping capabilities. When SSOs happen frequently in any given system, then the system is not functioning properly, and chronic problems must be addressed to eliminate SSOs.

Problems that may cause chronic SSOs include too much infiltration and inflow into the sanitary system from groundwater infiltrating through cracks; rain water or snow-melt flowing into the sanitary system through roof drains connected to sewers; groundwater from footing drains and house leads connected to the sanitary system; undersized sanitary systems with sewers and pumps that are too small to carry sewage; system failures due to tree roots growing into the sewer; sections of sewer pipe settling or shifting so that pipe joints no longer match, or sediment and other material building up causing blockages; equipment and pump failures; and power outages.

Current rules require owners of wastewater treatment disposal systems to report SSOs to the department. If the SSO is a result of a mechanical failure or acts beyond the control of the owner (other than rain or precipitation), the owner shall notify the department by telephone within 12 hours of discovery of the SSO. SSOs caused by precipitation shall be reported in the records of operation. DNR field office staff believe that wet weather SSOs have been greatly underreported over the years. It should be noted that the wastewater design standards require sanitary sewer collection systems to be designed to not have SSOs during storms with an intensity and duration

with a return period of less than five years. An example of this would be a 2" rain in 60 minutes. Many wet weather SSOs that are reported to the department occur during a storm with intensity and duration that has a return period of less than five years, indicating that these collection systems are not functioning properly.

The IDNR does not currently have broad statutory authority to require facilities to eliminate SSOs unless water quality violations are documented. Some facilities that have had a history of frequent SSOs have been ordered to eliminate the SSOs.

PROCESS

I. Identification of all SSOs

Since 2001 the department has maintained a database of all reported SSOs. In addition, for many years the department has listed known SSOs in the wastewater discharge permits. As new SSOs are reported they will be added to the database.

II. Changes to rules and permits

The wastewater discharge permits section has recently received approval to prohibit SSOs by stating the prohibition in the standard conditions of the permit. This language will be added to permits as they are renewed. In addition, administrative rules are currently being drafted that define and prohibit SSOs. In the current draft form, the rules require a verbal report of a SSO to the department within 6 hours of discovery and a written report within 14 days. The passage of these rules will greatly enhance the department's statutory authority to take enforcement action against facilities that report SSOs.

The wastewater construction permits section is also reviewing the design standards related to sewer capacity and emergency power requirements for lift stations. It is expected that the design standards will be enhanced and that construction permit application forms will be updated to ensure adequate engineering planning occurs before construction permits are issued for sewer extensions and lift station construction.

III. Regulatory Compliance Actions

Through routine inspections, the department will begin requiring facilities to obtain backup power or alternate pumping at lift stations. The inspector will require facility owners to submit a corrective action plan to eliminate SSOs at lift stations. In general these corrective action plans should be expedited and completed within one to three years, where possible.

Longer term corrective action plans may be necessary for facilities that have severe inflow and infiltration that result in SSOs. If facilities fail to submit corrective action plans, the department may issue an administrative order or administrative consent order. In addition, compliance schedules will be placed into administrative orders.

Within 60 days of publishing the final rule prohibiting SSOs, the department will notify, by certified mail, all municipalities and other responsible parties of the need to eliminate SSOs. The notification will also include copies of the rule requiring verbal and written notification requirements for SSOs as these notification procedures vary substantially from the existing requirements. The facilities will be required to submit corrective action plans to the respective field offices within 60 days of receiving the notification from the department.

IV. Public Awareness

For the past few years, the department has issued a press release when SSOs have occurred. This has made the public more aware of the problem and has informed the public of areas that may have been impacted by the SSO. This notification process is expected to continue.

Unsewered Communities Status, State of Iowa

